

**Chapter 2 The Chemistry of Life****Section Review 2-4****Reviewing Key Concepts**

**Completion** *On the lines provided, complete the following sentences.*

1. Chemical reactions that \_\_\_\_\_ energy often occur spontaneously.
2. During a chemical reaction, chemical bonds are \_\_\_\_\_.
3. Biological catalysts, or enzymes, act by lowering the \_\_\_\_\_ required for a reaction.
4. The reactants of an enzyme-catalyzed reaction are known as \_\_\_\_\_.

**Defining Terms** *On the lines provided, describe how the words in each set are related.*

5. catalyst, enzyme, activation energy

\_\_\_\_\_

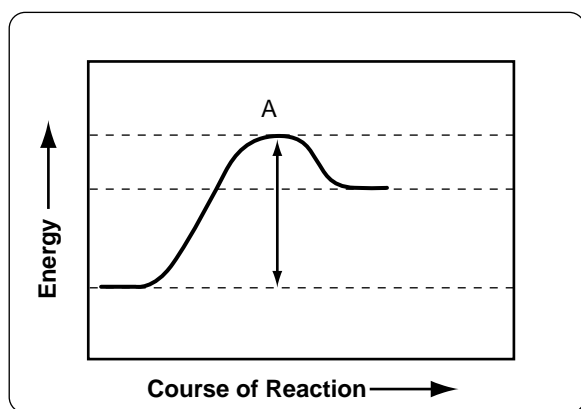
6. reactant, product, chemical reaction

\_\_\_\_\_

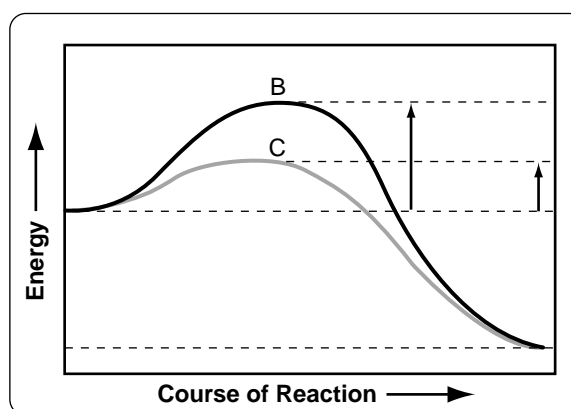
**Reviewing Key Skills**

**Interpreting Graphics** *Use the two diagrams of chemical reactions to answer questions 7 to 9.*

**Graph I**



**Graph II**



7. Which pathway has the greatest activation energy?  
\_\_\_\_\_
8. Which graph shows a reaction that absorbs energy?  
\_\_\_\_\_
9. Why are two pathways shown in the graph on the right?  
\_\_\_\_\_

10. **Forming a Hypothesis** Most enzymes in the human body work best at 37°C. Imagine scientists have discovered an enzyme in the body that works best at 39°C. What processes or functions might this enzyme be involved in?

\_\_\_\_\_  
\_\_\_\_\_